

-continued

INGREDIENT	WEIGHT %
Sodium saccharin	0.3
Sodium fluoride	0.2
Hydroxyethylcellulose	2.3
Hydrated silica abrasive	6.0
Sodium lauryl sulfate	1.2
Glycerin	23.0
Hydrated silica thickener	8.0
Peppermint Oil	0.2

Example 8

[0076] A second toothpaste formulation was prepared comprising a desensitizing agent consisting of either an Ormosil, inorganic composite, synthetically derived inorganic material, or sol-gel derived materials. The weight percentage basis and the process of preparation are the same as that set forth in previous examples.

INGREDIENT	WEIGHT %
Ormosil, containing high calcium	3.0
Sodium laurel sarcosinate	0.6
Sodium saccharin	0.3
Sodium fluoride	0.3
Hydroxyethylcellulose	2.3
Hydrated silica abrasive	6.0
Sodium lauryl sulfate	1.2
Glycerin	71.1
Hydrated silica thickener	8.0
Peppermint Oil	0.2

Example 9

[0077] A third toothpaste formulation was prepared as a two-phase system. This toothpaste may be in either one tube where each phase is kept separate by a septum dividing the package, it may be in a dual chamber pump that dispenses each phase simultaneously, or it may be packaged in separate tubes meant to be applied sequentially.

INGREDIENT	Phase A	
	WEIGHT %	Phase B
Base-catalyzed inorganic composite	3.0	—
Sodium laurel sarcosinate	0.6	—
Hydroxyethylcellulose	2.3	0.6
Sodium lauryl sulfate	1.2	—
Glycerin	82.8	—
Hydrated silica thickener	8.0	8.0
Methyl Salicylate	0.1	—
Sodium fluoride	—	0.3
Sodium saccharin	—	0.3
Water	—	84.6
Peppermint Oil	—	0.2
Hydrated silica abrasive	—	6.0

[0078] The active ingredient may also be formulated into a variety of dental rinse formulations designed to alleviate tooth sensitivity. An extremely fine particle size is needed to ensure homogeneous dispersion of either the Ormosil, inorganic composites, synthetically derived inorganic material,

sol-gel derived materials or naturally-derived calcium silicate from mineral precursors. This can be accomplished by either chemical modification or mechanical milling the of material.

Example 10

[0079] Formulations of a Medicinal-Type Mouthwash and Fluoride Oral Rinse are as follows in weight percent (adjusted to pH 6):

INGREDIENT	Medicinal-Type	Fluoride Oral
Inorganic Precipitated Material	1.0	—
Ethyl Alcohol	15.0	—
Glycerin	20.0	15.0
Polyethylene glycol	0.5	—
Water	61.5	73.5
Caramel Color	to desired shade	—
Sodium Saccharin	0.03	0.05
Ormosil	—	2.0
Alcohol	—	5.0
Spearmint Oil	—	0.25
Poloxamer 338	—	1.0
Sodium fluoride	—	0.05
Sodium benzoate	—	0.1
FD&C dyes	—	to desired color

[0080] Although compositions in accordance with the present invention are effective with a single application, multiple applications will enhance effectiveness. Numerous vehicles are present for the oral delivery of active agents of the present invention, including but not limited to, pastes, gels, rinses, powders, gums, dental floss, slurries and solutions and although each is not described it is within the scope of the present invention.

What is claimed is:

1. A dental product composition for the treatment of sensitive teeth comprising an amorphous bioactive particulate consisting essentially of calcium, silicon and oxygen, in an amount sufficient to alleviate tooth sensitivity by causing the formation of calcium containing mineral within the dentinal tubules of sensitive teeth.

2. The composition of claim 1 wherein said amorphous material is selected from the group consisting of:

- a reaction product of an organic silicate source and a source of calcium;
- a calcium containing hydrolysis product of tetraethylorthosilicate;
- a calcium containing silica sol-gel;
- a binary calcium oxide and silicate precipitated material;
- a synthetic analog of a naturally occurring wollastonite-like calcium silicate; and
- a precipitated reaction product of a soluble calcium source and a silicate solution.

3. The composition of claim 2 comprising a carrier and about 1-25% of said amorphous material.

4. The composition of claim 2 wherein the carrier comprises 0-30% water, 0-90% glycerol and 0-80% sorbitol.